PROJECT EVALUATION FORM

* Data supplied herein subject to revision upon receipt of Final Project Plans

1. Project Sponsor City of Philadelphia - Water Department

2. Municipal Location - Municipality: Philadelphia County Philadelphia

Receiving Stream: Delaware River (Mile Pt. 91.5)

3. Name & Address of Engineer Carmen F. Guarino, Water Commissioner

4A. Proposed Project Description (Attach Map) Expand and Upgrade Wastewater Treatment Facilities at City of Phila. Southwest Water Pollution Control Plant, 80th and Penrose Avenue, Phila., Pa., in accordance with joint orders of the DRBC and Commonwealth of Pennsylvania issued June-July, 1968.

B. List Design Year(s) of the Proposed Project

Collection ----------

Conveyance (Interceptors) ---------

Treatment 1990

C. Wastewater Flows: Complete the Following Table

			Initial (Plant Startup)	5-Year	Design Year
1. EQUIVALENT POPULATION TO BE SERVED					
	a. DOMESTIC[1]		1,310,000	1,430,000	1,525,000
	b. INDUSTRIAL (estimated)		130,000	250,000	475,000
	c. TOTAL		1,440,000	1,680,000	2,000,000
2. DESIGN YEAR OR PERIOD FOR OPERATING DATA					1990
3. RUNOFF PERIOD		(Hrs.)			
4. DOMESTIC WASTE FLOW DATA	a. PER CAPITA FLOW[2]	(GPCD)	55	56	60
	b. AVERAGE DAILY FLOW	(MGD)	72	80	91
	c. INFILTRATION	(MGD)	33	36	38
	d. RUNOFF FLOW RATE	(MGD)			
	e. MAXIMUM FLOW RATE	(MGD)	177	196	220
5. INDUSTRIAL WASTE FLOW DATA	a. AVERAGE	(MGD)	49	62	81
	b. MAXIMUM	(MGD)	Not Available	Not Available	Not Available
6. TOTAL AVERAGE FLOW		(MGD)	154		210

1. Taken from Greely & Hansen Preliminary Report (fig. 3-8)
2. Estimated from Domestic Water Consumption

D. Wastewater Characteristic Complete the Items Coded "S"

For 1990

		WASTE LOAD RAW ☐ Actual ☒ Estimated	WASTE LOAD TREATED ☐ Actual ☒ Estimated
WASTE FLOW	MGD	S M 210	S M 21.0
COLOR			
TEMPERATURE	°F		
pH		S M 7.0	S M 7.0
ALKALINITY	MG/L	S M	S M
SOLIDS – SUSPENDED	MG/L	S M 279	S M 28
SOLIDS – SUSPENDED	Lbs./Cap/Day	S 0.36	
SOLIDS – SUSPENDED	Lbs./Day	S M 188,000	S M 18,800
SOLIDS – SETTLEABLE	M/L	S M 14	S M <0.1
SOLIDS – DISSOLVED	MG/L	M	M
IRON – DISSOLVED	MG/L	M	M
IRON (Total)	MG/L	M	M
MANGANESE	MG/L	M	M
ALUMINUM	MG/L	M	M

		WASTE LOAD RAW ☐ Actual ☒ Estimated	WASTE LOAD TREATED ☐ Actual ☒ Estimated
15. BOD (5 Day 20°C)	MG/L	S 193	S 13
16. BOD (5 Day 20°C)	Lbs./Cap/Day	S 0.22	
17. BOD (5 Day 20°C)	Lbs./Day	S 339,000	S 21,800
18. DISSOLVED OXYGEN	MG/L		S 2.0
19. TURBIDITY	Units		S M
20. NITROGEN – AMMONIA	MG/L	S 35	S 35
21. NITROGEN – NITRITE	MG/L		S <1.0
22. NITROGEN – NITRATE	MG/L		S <1.0
23. PHOSPHATE (Total Soluble PO_4)	MG/L	S	S
24. SULFATE	MG/L	M	M
OTHER (SPECIFY)	(GIVE UNITS)		

E. Proposed Facilities Description (Locate on Map)

1. Collection: _____ ft. of gravity sewer _____ to _____ inches in diameter; _____ pumping stations _____, _____, _____ and _____ mgd peak pumping capacity.

2. Conveyance: _____ ft. of gravity sewer _____ to _____ inches in diameter; 1 pumping stations _____ and 75 mgd peak pumping capacity.

3. Treatment: (Description of Process) Preliminary Treatment (Grit & Screening Removal, Primary Settling) followed by oxygen activated sludge and chlorination

5. Is the proposed project dependent on existing (or previously approved) facilities? If YES, complete (6). [ ] YES [ ] NO

6. Existing Facilities Description: Complete the Following Table.

	Design Years		Design Capacity (mgd)	Existing Loads	
	Without Project	With Project		Hydraulic (mgd)	Organic #/day BODs
Collection					
Conveyance					
Treatment	1976	1990	136	135	140,000

A. Name and address of existing facilities owner

City of Philadelphia - Water Department

1160 Municipal Services Bldg., Phila., Pa. 19107

B. Are the existing facilities adequate for the initial, 5-year and design year loads to be generated by the proposed project? If NO, attach an explanation of the steps that will be taken to correct this problem; if a compliance schedule has been submitted, so indicate.

Initial [X] YES [ ] NO

5-Year [X] YES [ ] NO

Design [X] YES [ ] NO

7. Does the Proposed Project in any way duplicate existing or previously approved facilities? (If YES, attach an explanation describing the duplication and the reason for it.) [ ] YES [X] NO

8A. Are there any presently unsewered areas that might be served by the proposed project? If YES, locate areas on map and complete (8B). [ ] YES [X] NO

B. Has this possibility been considered in the design? If NO, attach an explanation why not. [X] YES [ ] NO

9. Are there any existing facilities that will be phased out as a result of the Proposed Project? If YES, locate on map and attach a list. [X] YES [ ] NO

Refer to Preliminary Report

10. Does the Proposed Project involve industrial wastes? If YES, attach an explanation describing the industrial wastes and the pretreatment to be provided. [X] YES [ ] NO

11. Project Financing: Complete the following Table.

	Estimated Project Cost	State a/o Federal Grants		Locally Funded Est. Project Cost
		Source	Est. Amt.	
Collection				
Conveyance				
Treatment				

12A. List relevant waste management plans and/or other studies and reports available for reference purposes.

	Title	Sponsor	Date
1.	Preliminary Plan-SWWPCP* -	Phila, Water Dept.	Jan, 1972
2.	DRBC Comprehensive Plan -DRBC		
3.	DVRPC-Regional Water Pollution Control Plan - DVRPC		

B. Is the Proposed Project consistent with the information presented in the documents listed in (12A)? If NO, attach an explanation. [X] YES [ ] NO

C. Are there any alternatives to the Proposed Project more regional in scope? (If YES, attach an explanation describing the alternate(s), indicate if it was investigated in detail, and why it is not to be implemented. [ ] YES [X] NO

Certification

I certify that the information noted above, and in the attachments hereto are, to the best of my knowledge, true and correct.

Signature of Consulting Engineer

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
Seal
KENNETH J. ZITOMER
ENGINEER
No. 3406-E

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